## WHAT IS CLAIMED IS:

- 1. A method for the diagnosis of an HIV-2 infection comprising the steps of:
- (a) contacting DNA or RNA from a body sample suspected of containing viral genetic material with a detectable complementary DNA probe in a hybridization solution to form a mixture of nucleic acids,
- (b) washing the mixture of nucleic acids with a wash solution, and
- (c) detecting the formation of a hybridized complex, wherein steps (a) and (b) are performed under conditions that allow generation of a strong hybridization signal in the presence of genomic RNA of HIV-2 and a faint hybridization signal in the presence of genomic RNA of HIV-1,

wherein said detectable, complementary DNA probe is such that (a) hybridization of the DNA probe with nucleic acids of HIV-2 under hybridization conditions can be strongly detected, (b) hybridization of the DNA probe with nucleic acids of STLV-III<sub>mac</sub> under hybridization conditions can be faintly detected, and (c) hybridization of the DNA probe with nucleic acids of HIV-1 under hybridization conditions cannot be detected;

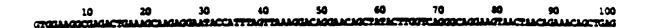
and further wherein said hybridization conditions comprise contacting DNA probe with said HIV-2, STLV-III<sub>mac</sub>, or HIV-1 in a hybridization solution consisting essentially of 5X SSC, 5x Denhart, and 50% formamide at 42°C followed by washing with a wash solution consisting essentially of 0.1% SSC and 0.1% SDS at 64°C.

- 2. The method of claim 1 wherein step b is performed by a process selected from the group consisting of Southern blot, Northern blot and dot blot.
- 3. The method of claim 1 wherein the complementary DNA comprises plasmid pSPE2 in clone CNCM No. I-595.
- 4. The method of claim 1 wherein a part of the probe is complementary to the U3 region of the HIV-2 genome.
- 5. The method of claim 1 wherein a part of the probe is complementary to the total R region of the HIV-2 genome.
- 6. A process for detecting the presence of HIV-2 comprising:
- (a) providing a sample suspected of containing viral genetic material;
  - (b) contacting said sample with a DNA probe; and
- (c) determining whether a hybridized complex is formed, wherein said DNA probe is capable of producing a strong hybridization signal in the presence of genomic RNA of HIV-2, a weak hybridization signal in the presence of genomic RNA of SIV and faint or no hybridization signal in the presence of genomic RNA of HIV-1.
- 7. A method for the diagnosis of an HIV-2 infection comprising the steps of:
- (a) contacting DNA or RNA from a body sample of a person suspected of having an HIV-2 infection with a cDNA probe under conditions sufficient to form a detectable hybridized complex in the presence of an HIV-2 infection; and

(b) determining whether said hybridized complex is formed,

wherein said cDNA probe comprises a nucleotide sequence that is substantially complementary to a HIV-2 genomic RNA,

said all or part of the nucleotide sequence is capable of specifically detecting the presence of HIV-2 and said nucleotide sequence comprises



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8. A DNA probe capable of hybridizing under high stringency conditions to all or part of a viral RNA genome or proviral DNA genome of HIV-2 virus to form a hybridized complex, wherein said hybridized complex is capable of being detected, and wherein said high stringency conditions comprise a hybridization condition and a wash condition that allow generation of a strong hybridization

signal in the presence of genomic RNA of HIV-2, a weak hybridization signal in the presence of genomic RNA of SIV and a faint or no hybridization signal in the presence of genomic RNA of HIV-1.

- 9. A DNA probe as claimed in claim 8, wherein said portion of the genome of the HIV-2 virus comprises the total R region of the HIV-2 genome.
- 10. A DNA probe as claimed in claim 8, wherein said portion of the genome of the HIV-2 virus comprises the U3 region of the HIV-2 genome.
- 11. A DNA probe as claimed in claim 8, wherein the cDNA probe comprises a sequence derived from pSPE2.
- 12. The DNA probe of claim 8, wherein the DNA probe comprises all or part of a viral DNA having the identifying characteristics of viral DNA deposited under culture collection accession number C.N.C.M. No. I-626.
- 13. The DNA probe of claim 8, wherein the DNA probe comprises all or part of a viral DNA having the identifying characteristics of viral DNA deposited under culture collection accession number C.N.C.M. No. I-627.
- 14. The DNA probe of claim 8, wherein the DNA probe comprises all or part of a viral DNA having the identifying characteristics of viral DNA deposited under culture collection accession number C.N.C.M. No. I-628.
- 15. A DNA probe as claimed in claim 8, wherein said probe is capable of hybridizing to an entire viral RNA genome or proviral DNA genome.